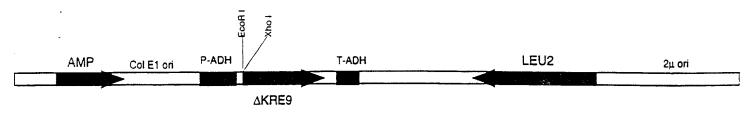
pBOSS1

(8398 bp)



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FIG. 1A

SIGNAL PEPTIDE SELECTION IN pBOSS1

Step	1	Transform	library	into	ΔKRE9	yeast	strain
		Titer on 9	galactose	<u> </u>			

- Step 2 Plate transformants on glucose
- Step 3 Harvest colonies at day 2-4, rescue plasmid DNA in batch
- Step 4 Transform E.coli DH10B, sequence ends of rescued plasmids

FIG. 1B

GGGG	ACCG	TGTI	TGTG	GCCC	CCAA	IGCCC	. ين		CAT I	."I"I"GG	BAAC'I	CAGC	:GAG'I	'AGGC	ъ.	JGCTC	TGGG	GAAG	TGG	79
CAGO	GGGC	GCAG	CAGO	TGC?	rgcci	CCAC	CTTCC	CTAC	CCAC	GTGC	TGA	AGAGG	ATCI	TCGC	GAGCO	CGCTC	TGGC	cccc	AGG	158
CGCI	GGAT	GACT	GGCA	ACCAC	GCGC7	CCTC	CGCAC	CTGI	GTTG	GTGT	GTG	AGACI	TGGG	CTG	SAGTO	GCCC#	CGTG	GCTG	TGG	237
AGTO	CAGTO	GTGAT	TCAT	rgat:	rgag(GAAA(GCG	CCTC	CATO	CTCI	CTCT	rccīn	rggc <i>i</i>	CTT	CCAC	CACAT	GAGG	SAGAA	GAA	316
GAG	CTTCI	GTT	raga <i>i</i>	AGAC	ACGT(3CCC1	AGAG'	rcag <i>i</i>	AGGC(CCT	rgcco	CACC	M ATG	K AAG	_	T ACC	C TGT	V GTT	I ATA	7 388
A GCA	W TGG	L CTG	F TTC	S TCA	S AGC	L CTG	G GGG	L CTG		R AGA			H CAC		E GAG	A GCC	Q CAG	g GGT	T ACG	27 448
T ACT	Q CAG	C TGC	Q CAG	R AGA	T ACA		E GAG		N AAT	I ATT	V GTT	_	P CCC	_	S TCC	K AAG	A GCA	T ACA	F TTC	47 508
					D NO															50 517

TTCI	TCCI	AGTT	TCTT	TTTC	:GGCA	CAAT	'AT	CAAG	TTAT	'ACCA	AGCA	TACA	ATCA	ACTO	CC.	.uTTG	GGAT	CCGA	ATT	79
CGGC	:ACGA	\GCG(GCACC	SAGTT	GTGC	TTC	GAGA	CCGT	'AAGG	:ATAI	TGAT	GACC	M : ATG	R G AGA	S TCC	L CTG	L CTC	R AGA		6 149
T ACC	P	F TTC	L CTG	C TGT	G GGC	L CTG	L CTC	W TGG						G GGC		R AGG	A GCT	E GAG	E GAG	2 6 20 9
P	A	A	S	F	S	Q	P	G	S	M	G	L	D	K	N -	T	V	H	D	46
CCT	GCA	GCC	AGC	TTC	TCC	CAA	CCC	GGC	AGC	ATG	GGC	CTG	GAT	AAG	AAC	ACA	GTG	CAC	GAC	269
Q	E	H	I	M	E	H	L	E	g	V	I	N	K	P	E	A	E	M	S	66
CAA	GAG	CAT	ATC	ATG	GAG	CAT	CTA	GAA	ggt	GTC	ATC	AAC	AAA	CCA	GAG	GCG	GAG	ATG	TCG	329
P	Q	E	L	Q	L	H		F	K	M	H	D	ү	D	G	n	n	L	L	8,6
CCA	CAA	GAA	TTG	CAG	CTC	CAT		TTC	AAA	ATG	CAT	GAT	ТА Т	GAT	G GC	aat	aat	TTG	CTT	389
D	G	L	E	L	S	T	A	I	T	H	V	H	K	E	E	G	S	E	Q	106
GAT	GGC	TTA	GAA	CTC	TCC	ACA	GCC	ATC	ACT	CAT	GTC	CAT	AAG	GAG	GAA	GGG	AGT	GAA	CAG	449
A GCA	PCCA	L	E GAG	V GTG	N AAT	I ATT	V GTT	S TCC	P	S AGC	S TCC	K AAG	A GCA	TACA	F TTC	S	PCCA	AGT	S€Q 13 NO	506

Comparison of novel protein sequence emxosb4a11 to murine semaphorin F (Genbank Accession number X97817)

Identities = 22/32 (68%), Similarities = 26/32 (81%)

emxosb4all: 1 MKGTCVIAWLFSSLGLWRLAHPEAQGTTQCQR 32 (SEQ ID NO:2)

MKG C++AWLFSSLG+WRLA PE Q +CQR (SEQ ID NO:14)

mu semF: 1 MKGACILAWLFSSLGVWRLARPETQDPAKCQR 32 (SEQ ID NO:5)

Underlined - predicted signal peptide

Comparison of emxosb4f08 to probable calcium-binding protein (CaBP) (Genbank Accession number JS0027)

emxosb4f08	1	MRSLLRTPFLCGLLWAFCAPGARAEEPAASFSQPGSMGLDKN 42
emxosb4f08	43	TVHDQEHIMEHLEGVINKEAEMSPQELQLHYFKMHDYDGNNL 84 MSPQELQLHYFKMHDYDGNNL
CaBP	1	MSPQELQLHYFKMHDYDGNNL 21
emxosb4f08	85	LDGLELSTAITHVHKEEGSEQAPL 109 (SEQ ID NO:4) LDGLELSTAITHVHKEEGSEQAPL (SEQ ID NO:15)
CaBP	22	LDGLELSTAITHVHKEEGSEQAPL 45 (SEQ ID NO:6)

<u>Underlined</u> - predicted signal peptide